paper board packaging

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Marketing Preprinted Linerboard

Operator Training Techniques

AN HBJ PUBLICATION

paper board packaging

AUGUST 1984, VOLUME 69, NO. 8

On the Cover:

Preprinted linerboard, one of the biggest industry developments in years, must be marketed properly for profitable impact. Story begins on page 16. (Photo courtesy of Champion International Corp.)

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by Mark Arzoumanian

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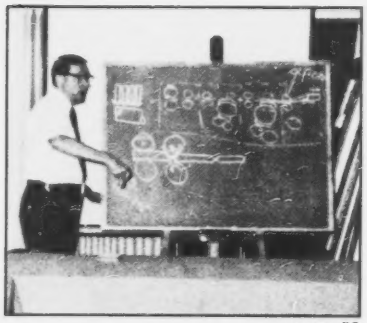

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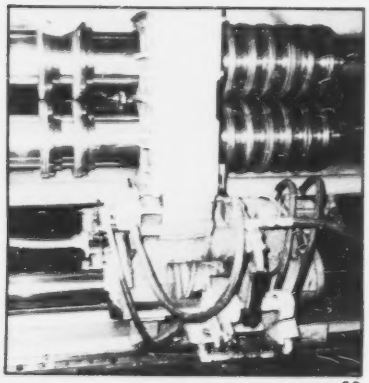

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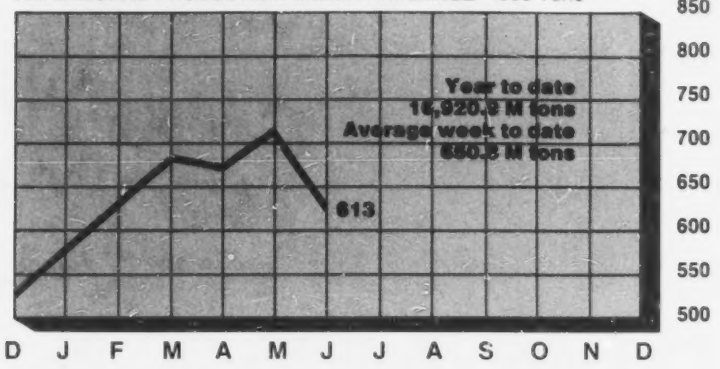
INDUSTRY
STATISTICS FOR 1984

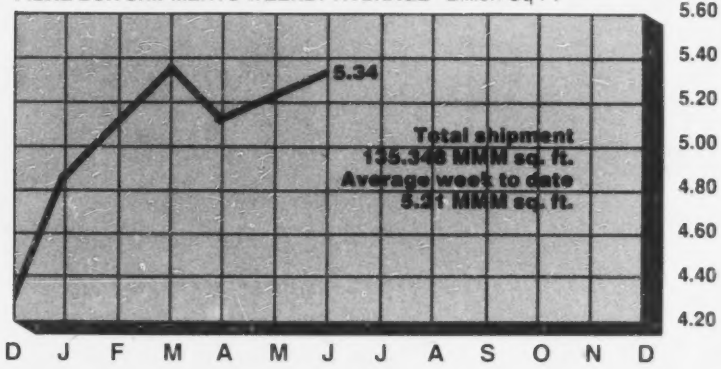
PAPERBOARD PRODUCTION WEEKLY AVERAGE 1000 Tons



PAPERBOARD MILL OPERATIONS

The first half of 1984 ended with an average-week board output 9.7% ahead of the 1983 tonnage, which had been 5.5% up from '82, which was 8.5% below '81, which was up 3.2% from '80, after a drop of 1% in '80 from '79. So go the yearly shifts and fluctuations, though they average out to a sedate annual increase, over the decades. Sad to say, containerboard demand vs. boxboards is more marked than ever, with a full 3-to-1 ratio in June—half-again above the 2-to-1 considered normal in the cartons' yesteryear heyday.

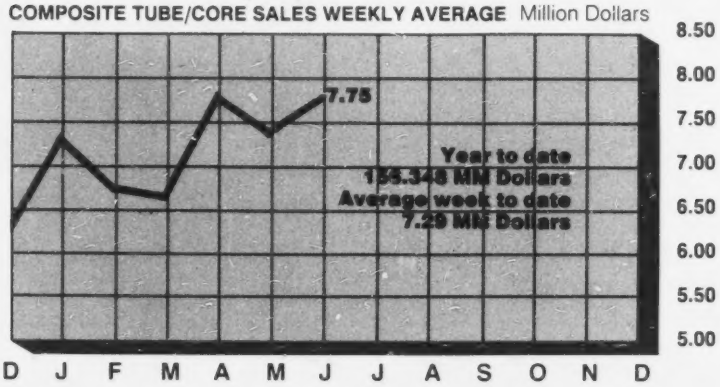
FIBRE BOX SHIPMENTS WEEKLY AVERAGE Billion Sq Ft



PAPERBOARD-TYPE PRODUCTION

In June, the output comprised some 1977.3 M tons of containerboards and 649.5 M of boxboards, as projected on basis of historic proportions from the API's reported "furnish" tonnages. To be noted is that the increase for unbleached kraft furnish (linerboard) is higher than that for semichemical. This suggests that much liner production is going elsewhere than into domestic container conversion—as witness the continued vigor of liner exports and of higher-quality (kraft) output—at expense of recycled.

COMPOSITE TUBE/CORE SALES WEEKLY AVERAGE Million Dollars



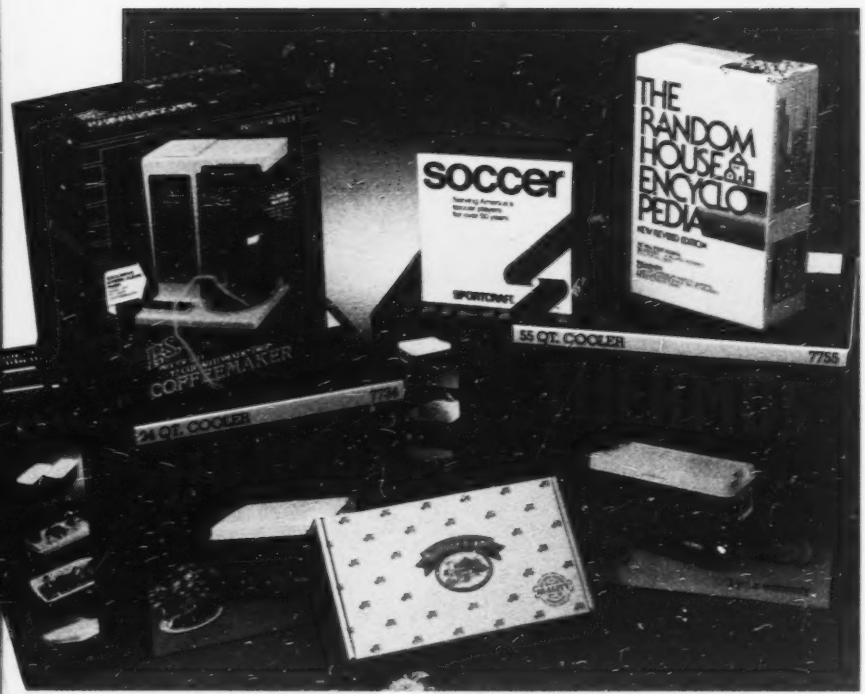
RIGID PAPER BOXES

Through the first six months of 1984 billings for rigid paper set-up boxes reported by its members to the National Paperbox & Packaging Association varied wildly, with some areas showing double-digit improvements over 1983 in one month and deficits in the next, and with some showing increases of more than 100% while others were down. It may be that this scene denotes some permanent evolution, since set-up boxboard consumed in 1983 was at its lowest ebb in reported history, down by 48% from 1973.

paper board packaging
PRINTING & GRAPHICS

Will corrugated converters ever realize there are customers out there willing to pay for quality? A golden opportunity for substantial profits is staring them right in the face.

Will Marketing Be Preprint's Achilles' Heel?



Some excellent examples, courtesy of Schiffenhaus Packaging Corp., of preprint packaging in a variety of industries

by Mark Arzoumanian
Editor

If you've heard it once, you've heard it a thousand times. You may have the greatest product, plant, or capability in the world, but if the world doesn't know about it, so what? What do you have to do to get noticed?

Market it properly.

Until fairly recently, the corrugated-container industry has been known as the "plain brown box" industry. Preprinted linerboard is a concept whose time has finally come.

The technology is there for those who want to take advantage of it. Although every end-user does not need preprint quality, there are enough out there more than willing to pay it *if* they are properly educated on the benefits of enhanced graphics.

Can this industry meet this marketing challenge and substantially alter its less-than-glamorous image? Will it be able to finally earn some significant profits through the proper marketing of preprint? Or will it soon lose sight of the fact that there are customers out there willing to pay a price for quality? In 10 years, will preprint be marketed like the brown box is today?

These were some of the questions posed by *Paperboard Packaging* as it again examines developments in the preprinting of linerboard (see February 1983). The focus here will not be so much on companies involved and the presses they have purchased as on the marketing of preprint both now and in the future. In this regard, a lot of the information presented here is courtesy of Laurence (Chip) Schiffenhaus Jr., Schiffenhaus Packaging Corp., who gave a comprehensive talk on the preprinted-liner market at the Flexographic Technical Association's Annual Meeting in New Orleans last May.

In answering the above questions and more, it is first necessary to find out how companies successfully producing preprint *today* are going about marketing it.

Relative economics

"End-users have to fully understand the product both graphically and in terms of the relative economics of competitive products," says George Jamison, vice president and general manager at Schiffenhaus. "We find out a customer's needs and work with him on an individual basis. We don't say, 'We're going to sell you preprint.' It is just not the way it is done."

Jamison points out that preprint hasn't made a major penetration of any one specific market. What have been some of the barriers? As pointed out in Schiffenhaus's FTA speech, they include limited supply and a consequent lack of commitment on the part of end-users, geographic limitations, limited customer awareness, a resistance to change, a lack of standardization, limited producer knowledge (especially in the sales area), and the high cost of plates

AGGREGATE RESULTS OF PRE-PRINT SURVEY

	1983	1990
1. PREPRINT VOLUME (MSF)	369,870 MSF	3,365,000 MSF
2. MACHINE HOURS USED TO PREPRINT (MSF)	13,298	33,800

TABLE I

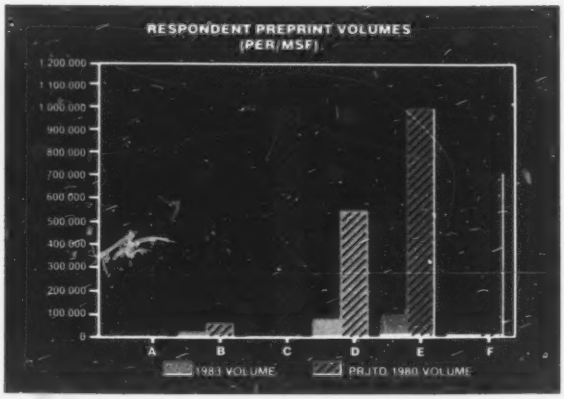


TABLE II

and separations for process work.

Bob Draper, preprint manager at Pioneer Container Corp., echoes Jamison's opinions regarding the proper way to market preprint:

"You have to make sure the customer is aware of the capabilities and limitations of flexo, and make certain he knows what kind of graphic reproduction to anticipate. You don't sell preprint as equal to litho lamination. The customer has to make a value decision that comes down to quality versus cost."

Says Mentz Billingsley, general sales manager for preprint at Container Corp. of America, which has been producing preprinted linerboard for close to three years: "It's very important to sit down with the key decision-makers and tell them what preprint is and where it is going. There have been significant changes in the merchandising environment as more and more items are being sold in packaging. Very seldom can you find a sales clerk in stores to sell the product. You can't rely on two-color distribution graphics on a brown box. The package has to sell the product."

Where's the market?

Before going any further, it's important to pinpoint where the preprinted-linerboard market stands today and how it will grow. The market survey conducted earlier this year by Schiffenhaus Packaging provides a pretty accurate picture. Six major suppliers of flexographic preprinted linerboard in North America participated in the survey, which consisted of eight questions. The accompanying six tables and charts give you a focused and reliable picture of a market that until fairly recently was simply too small to measure. However, it is worthwhile to expound on CHART I.

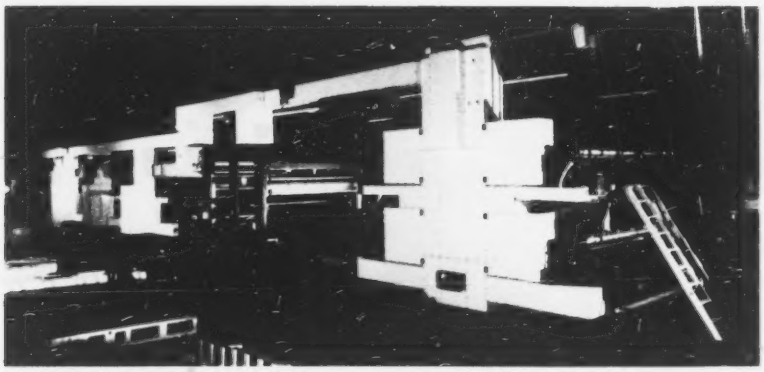
"I don't think the market for preprinted linerboard will ever be saturated," says Lee Stalder, manager of marketing services, MacMillan Bloedel Containers. The company has a preprint operation (using a Flex-O-Line press) at its Union, N.J., plant. "Such areas as lighting, point-of-purchase displays, liquor, beer, and even produce are just being embarked upon by preprint."

Says Draper: "We're not opening doors to new markets because we never knew we could open them. It's that old corrugated mentality. People are operating under rules and guidelines of many years ago. There is a lot that we don't even know about today. Any market that requires point-of-purchase displays will have use for preprint. A wide spectrum of print quality will be available."

Vince Silvestri, product manager for preprinted linerboard at Union Camp, looks at this subject in a broader perspective: "You have to look at markets for preprint from the customer's point of view, and these customers have to be quality-oriented. It's more a matter of philosophy than a particular market to go for. There are many, many segments and you're limiting yourself if you focus on one market." Union Camp recently purchased a custom-built press from Cobden Chadwick and plans to be preprinting linerboard before the end of this year.

"There's going to be large growth in the food industry and retail packaging, as shipping containers will be used as retail displays," notes Jim Keune, sales manager for Champtone, the preprint division of Champion International Corp. Champion has been preprinting linerboard for 2½ years on a Conprinta flexo-belt press. "Over the past few years, there has been an incremental packaging upgrade, and preprint is the end result. Three years ago there was no preprint market and a limited number of people talking about it. Now there is a large number of people talking seriously to users about what preprint can do. Ink- and plate-supplier abilities have vastly increased as they go after this market, and the same goes for machine capabilities."

"The food and beverage market has large potential, specifically the beer and soft drink industry," says Jamison. "That is why we are going into Canada. Beer is marketed differently there. Also, the printing conversion (from letterpress to preprint) means that the economics are closer than in the U.S." Schiffenhaus just announced the formation of a joint-venture company, Schiffenhaus Canada Inc., which will be a trade preprint operation to serve the Canadian corrugated-container industry. The company will be formed with The Packaging Group of Domtar Inc., Malton, Ont., and MacMillan Bathurst Inc., Mississauga, Ont. Its *only* purpose will be to produce high-quality "PREflex" preprinted liner for Canadian and U.S. markets. The company also announced it will buy an 88" web flexo press for this operation. The plant will be



This Cobden Chadwick seven-color Linerflex press is the largest (98") the company has ever supplied and was installed late last year at Altonaer Wellpappenfabrik in West Germany.

at an as-yet-undetermined site in Ontario. Start-up is planned for mid-1985.

Now to the crux

Okay. The market is there and will be growing. It's time to answer the questions posed at the beginning of this article. Can this industry market preprint for profit five years from now, or will converters lose sight of the fact that there will *always* be customers willing to pay top price for quality? What will happen when new converters enter this specialty market? Will quality lose out to volume?

"You have to understand that there's the idealistic viewpoint and the realistic viewpoint," says Draper. "Ideally, the customer pays for what he gets and is willing to pay for the improvement in what he's getting. However, with the additional printers coming into the market, people will be looking for ways and means to fill the presses when installed, and they might start selling preprint containers like existing brown boxes—setting pricing standards. Box plants are mill-driven and people in this industry don't know how to sell for the higher price."

Draper adds that integrated box plants tend to aim for the lower-end/high-speed-and-volume portion of the market, reducing price and quality, while the independents shoot for the high end of the graphics market.

Larry McVicker, vice president of marketing and new business development, Packaging Corp. of America, believes that as more preprint suppliers get into the market, profit margins will be lowered, "but not to the severity of brown boxes." PCA is currently buying its preprinted linerboard from two outside sources.

"The materials are different," he says. "The linerboard is clay-coated. It's limited in supply and sells for considerably more. It's a supply-and-demand market. If you want to keep your profit margins, you'll have to upgrade quality."

"Long-term, pricing is a definite danger and it will become more competitive," says Silvestri. "But there is a very strong skill level required in order to provide quality. The skill factor cannot be ignored."

"Preprint is a specialty product that can be looked at in different ways, including a more efficient manufacturing process," says Keune. "The economics are completely different. For example, if, because of preprinting, you can save on board weight, that's a significant portion of total cost. In the years ahead the market price might be less but preprint will provide for a most cost-effective manufacturing concern."

What about penetration?

Of course, both the current and future market for preprint must be put into perspective, because everyone agrees that preprint will not be needed or wanted by every end-user, no matter how high the degree of quality. In 1983, total corrugated shipments, as reported by the FBA, reached 252,000,000 MSF. Based on the Schiffenhaus survey, that means that the total demand of 369,000 MSF of preprinted linerboard in 1983 was just 0.15% of total shipments. Assuming a growth rate of 3% for corrugated shipments through the rest of the 1980s, total shipments in 1990 will be about 310,000,000 MSF, according to research done by Schiffenhaus. The projected demand of 7,851,665 would then be only 2.5% of total shipments. If total production capacity was filled (estimated at 12,350,000 MSF), preprint would then comprise 4% of total shipments. Obviously, other "competing" methods of enhancing

FORECASTED PREPRINTED LINERBOARD SALES IN 1990

PRESSES ON HAND	3,365,000 MSF
PRESSES ON ORDER	1,682,499 MSF
PRESSES TO BE ORDERED	2,804,166 MSF
TOTAL DEMAND IN 1990	**7,851,665 MSF**

TABLE III

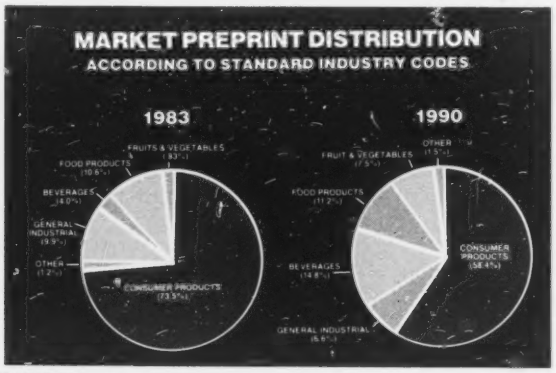


CHART I

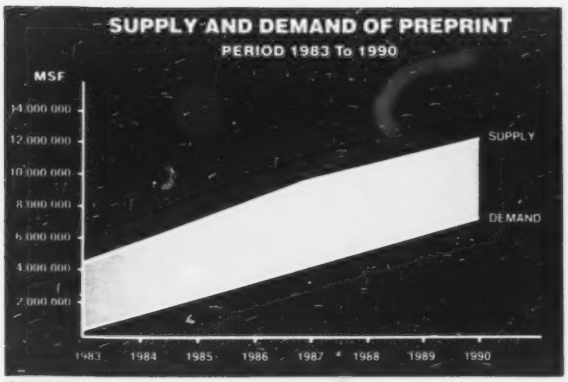


CHART II

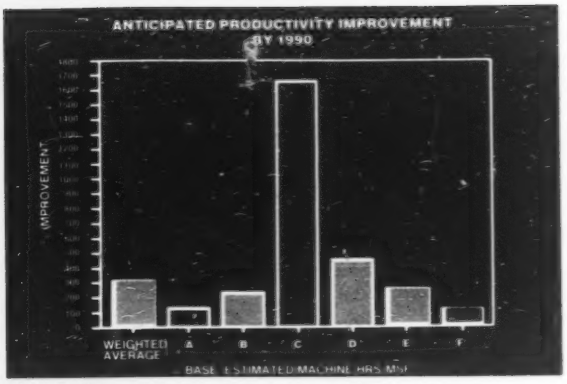


CHART III

container graphics (including litho laminating) aren't going to disappear anytime soon, although continuous advances in preprinting will keep suppliers of such other methods on their toes.

Speaking of penetration, will preprinted linerboard be able to take away business from the folding-carton industry? To a limited degree, yes.

"The economics of E-flute and preprint are such that only a portion of the folding-carton market will open up, but it won't be a large portion," says Jamison. "There will be advantages in E-flute over folding-carton but a person has to be willing to pay for the benefit."

"A lot of beer cans are in folding cartons, so the marketing is important," says Draper. "Cans are becoming thinner and thinner, and the folding carton doesn't have the cushion to protect the cans from being damaged and leaking. The graphic quality in flexo preprinted liner is there but there has to be a requirement for corrugated first."

Technology pros and cons

In Schiffenhaus's presentation at the FTA Annual Meeting, he cited a number of technological advances associated with preprinted linerboard. These included wider presses, new inking systems (such as dual doctor blades), larger and thinner plate materials, ink and coating improvements, ceramic rolls, better color separations, the higher quality of certain grades of linerboard, and the ability to run split rolls at the double backer. However, this is not to say that there isn't room for improvement. Specifics in this area include more accurate mounting systems, a means of inexpensively proofing printing plates and being able to accurately predict the final result.

What in the way of new technology have suppliers been coming up with? A recent innovation in Cobden Chadwick Ltd.'s (Oldham, England) Linerflex press is the ability to register the in-line flexo units with the four-color process units situated around the drum. Automatic-registration equipment can be used either to register the additional in-line units to the colors around the drum, or to register the in-line units with each other. This way, either all the units can be used to print a multi-color job, or the four-color drum can be set up for one job while another job is being printed on the in-line units, substantially reducing downtime.

Windmoeller & Hoelscher Corp. (Lincoln, R.I.) has a new Olympia 964 close register single bull gear stack press which possesses a small plate to web contact area, reduced impression pressure and register accuracy of 0.004" due to direct drive of all printing decks from one central "bull gear." Owens-Illinois has ordered an Olympia 964 (88" wide) for delivery in the latter part of 1985.

General Web Dynamics, Rockford, Ill., is a classic case of a company introducing technology used for other industries—folding-carton, plastic-film-converting, etc—into the preprinting operation. Its automatic-web-guiding system (CAT-1000) utilizes standard components in a special configuration for the corrugated preprint application. For this application, the optical sensor detects and follows the preprinted liner from below. Through electronic slaving potentiometers, the electro/hydraulic power units move the triplex shaft proportionally to the movement of the chasing sensor. Several installations of the CAT-1000 have been made in the U.S. market and accuracies of ± 1/32" slit-to-print have been reported. Finally, it should be noted that optical guiding systems can be employed as edge-guiding systems on brown board runs between preprint orders.

What about the future?

After talking to dozens of executives intimately involved (or about to be) in preprint, one thing is clear: the process is not in any danger of not winning over customers because suppliers don't know how to fully market it. However, the words of Ron Glick, vice president and general manager of converting operations, Owens-Illinois Inc., must be heeded:

"It might be a little brash for me to say, but today's exceptional quality could become tomorrow's standard. That's the level of quality the corrugating industry is moving to." In other words, relying on past printing accomplishments for future revenues could be very hazardous to your business!

"Preprint liner will continue to make a most dramatic impact on this industry," says Draper. "The demand for the product will still be high for years to come. People are ordering preprint presses to run with corrugators, and corrugating plant equipment will be designed for the maximum use of preprinted linerboard. The flexo press will be the catalyst. Other machinery will have to be geared to it. Preprinting could very well eliminate the flexo part of the flexo folder-gluer because corrugated is such a poor surface to print on. We are more excited about preprint today than we ever were." □

NOTE

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22, 24, 26-27, 30-33, 36,

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